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# **Notice of Allowability**

Application No.

09/699,553

Examiner

Chieh M Fan

Applicant(s)

TANAKA, HIROKI

Art Unit

2634

## **-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 10/13/2004.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ The drawings filed on 13 October 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## **Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

***Statement of Reasons for Allowance***

1. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-5 and 13, the prior art of record does not teach "first-stage correlators taking correlation between M received signals spaced apart from one another by every K chips, and M spread code sequences obtained on jumping a spread code sequence of a length N by every Kth chip to output correlation values associated with K signatures, respectively; and second-stage correlators taking correlation between the correlation values associated with K signatures output by said first-stage correlators and a pre-defined signature pattern."

Regarding claims 6-12, the prior art of record does not teach the limitations "first-stage correlators comprised of K juxtaposed correlator blocks, each block being of an M chip length; K spread code shift registers storing the spread code sequence re-arrayed by said spread code re-arraying unit to shift-output said spread code sequence to said K correlator blocks, respectively, of said first-stage correlators; each of said correlator blocks of said first-stage correlators being fed with a spread code sequence from the said spread code shift register associated with each of said correlator blocks, each of said correlator blocks outputting a correlation value of the received signal read out from said received signal storage memory and said spread code sequence; a correlation value storage memory storing the correlation value output from said first stage correlators; a correlation value storage memory controller controlling writing of the correlation value output from the first-stage correlators and reading out of the correlation value from said correlation value storage memory; a signature pattern storage unit

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storing and holding a preset signature pattern; second-stage correlators calculating correlation values between the correlation values read out by said correlation value storage memory controller and said signature pattern stored in said signature pattern storage unit; and a signature detector detecting the signature from the correlation value output from said second-stage correlators to output a fixed pattern detection signal."

Regarding claim 14, the prior art of record does not teach "first-stage correlators taking correlation between M received signals spaced apart from one another at every K chips, and M spread code sequences obtained on decimating y spread code sequence of a length N at every K chips to output correlation values associated with K signatures; and second-stage correlators taking correlation between the correlation values associated with K signatures output by said first-stage correlators and a pre-defined signature pattern."


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (571) 272-3042. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

  
Chieh M Fan  
Primary Examiner  
Art Unit 2634

cmf  
November 14, 2004